

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit	: 2879	Customer No.: 035811
Examiner	: Anne M. Hines	
Serial No.	: 10/589,914	
Filed	: August 18, 2006	
Inventors	: Kinya Kisoda	Docket No.: SSC-06-1232
	: Tadashi Seki	Confirmation No.: 2201
Title	: METHOD OF SEALING GLASS : PANEL ASSEMBLY AND SEALING : PROCESS FURNACE	Dated: December 30, 2008

RESPONSE

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is submitted in response to the Official Action dated October 6, 2008.

Claims 1 and 2 stand rejected under 35 USC §102 as being anticipated by Miyazaki. The Applicants note with appreciation the Examiner's helpful comments hypothetically applying Miyazaki against Claims 1 and 2. The Applicants, nonetheless, respectfully submit that Miyazaki fails to implicitly or explicitly disclose all of the claimed subject matter. Reasons are set forth below.

The Applicants have thoroughly reviewed Figs. 1A – 1C as well as paragraphs [0149] – [0171] of Miyazaki as helpfully referred to in the rejection and respectfully submit that there are significant portions of the Applicants' claims that are not disclosed by that particular disclosure or Miyazaki generally. For example, the Applicants' claims recite a preliminary heat process where the temperature of the glass panel assembly is increased to a preliminary temperature within a forced flow of a heating medium. The claims also recite that the temperature of the glass panel assembly is

raised from the preliminary temperature to a sealing process temperature within a forced flow of heating medium. The claims also recite that the gas panel assembly is cooled within a forced flow of a cooling medium.

These steps are illustrated in the Applicants' Specification and drawings, wherein it is shown that the forced flow of heating medium is provided by a recirculation fan 17 that forcefully circulates the internal thermal medium gas through channel 15, wherein the internal gas as the heating medium is heated by radiant tube burner 19. This disclosure may be found in Fig. 2 of the drawings, for example, as well as Pages 6 – 8 of the Applicants' Substitute Specification. The Applicants note that this structure is separate from the vacuum draw unit 27 as also shown in Fig. 3 and also as described on Page 8, for example. Thus, the Applicants' apparatus and process involves the application of reduced pressure through the vacuum draw unit 27, yet also includes the three (3) separate steps of increasing or decreasing the temperature of the glass panel assembly by a forced flow of heating medium or cooling medium with the recirculation fan 17 that forcefully circulates the internal thermal medium gas through channel 15.

This is sharply contrasted to what Miyazaki teaches. There is no disclosure of a forced flow and no disclosure of a means for causing a forced flow. Instead, Miyazaki applies a vacuum throughout the whole process and heating is performed by heating plates 116 within chambers 102 and 106, for example. This is shown in Figs. 1A and 1C, for example, and described in paragraph [0156]. Careful scrutiny of the entire Miyazaki disclosure reveals that there is simply no means for providing a forced flow of a heating or cooling medium. In that regard, the vacuum means described but not shown in Miyazaki are not a forced flow means and do not cause a forced flow of a heating or cooling medium in the manner claimed by the Applicants. This is because the Applicants also employ pressure reduction processes and a vacuum device 27. The Applicants have found that not

only is the pressure reduction or vacuum beneficial, but so is the forced flow of the heating or cooling medium depending on the circumstance. There is no appreciation for this in Miyazaki and, accordingly, no implicit or explicit disclosure thereof.

Thus, the Applicants' claimed subject matter provides for the improved mutual control of temperature and pressure which allows an efficient continuous process. This improved mutual control is achieved by the forced flow of heating and cooling medium as discussed above. Moreover, the improved mutual control of temperature and pressure allows for the production of plasma display panels having an improved light admitting performance which is not contemplated by Miyazaki as well. This is described in paragraph [0035] on Page 13 of the Applicants' Substitute Specification. As a result, the Applicants respectfully submit that Miyazaki fails to disclose significant aspects of the Applicants' claimed subject matter with respect to the utilization of the forced flow of heating and cooling medium a specifically claimed. Withdrawal of the rejection based on Miyazaki is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury
Reg. No. 31,750
Attorney for the Applicants

TDC/nn
(215) 656-3381